AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at page 1, line 17 as follows:

This application is also related to U.S. application Ser. No. 08/759,645, filed Dec. 5, 1996, now U.S. Pat. No. 5,763,261, to Micheal Gruenberg, entitled CELL GROWING DEVICE FOR IN VITRO CELL POPULATION EXPANSION, which is a continuation of U.S. application Ser. No. 08/506,173, filed Jul. 26, 1995, now U.S. Pat. No. 5,637,070, to Micheal Gruenberg, entitled CELL GROWING DEVICE FOR IN VITRO CELL POPULATION EXPANSION. The subject matter of each of U.S. application Ser. Nos. 08/700,565, 08/506,668, 08/506,173, now U.S. Patent No. 5,627,070, 08/759,645, now U.S. Patent No. 5,763,261, and International PCT application No. PCT/US96/12170 is herein incorporated by reference in its entirety.

Please amend the paragraph at page 23, line 7 as follows:

As used herein, a hollow cell fiber culture system include of a hollow fiber bioreactor as well as pumping means for perfusing medium through said system, reservoir means for providing and collecting medium, and other components, including electronic controlling, recording or sensing devices. A hollow fiber bioreactor is a cartridge that contains of a multitude of semi-permeable tube-shaped fibers encased in a hollow shell. The terms hollow fiber reactor and hollow fiber bioreactor are used interchangeably. A preferred device for methods is that described in ~~copending, allowed, U.S. application Serial No. 08/506,173~~ U.S. Patent No. 5,627,070.

Please amend the paragraph beginning at page 36, line 20 as follows:

The preferred HF bioreactor system for use herein is described in ~~copending, allowed, U.S. application Serial No. 08/506,173~~ U.S. Patent No. 5,627,070.

Please amend the paragraph beginning at page 36, line 24 as follows:

A HF system that closely emulates in vivo conditions thereby permitting T cells to grow to densities of over 1 x 10^7 cells/mls, preferably 1 x 10^8 cells/ml, that uses fibers with a low molecular weight cutoff to retain mitogenic mAbs and serum components, and that does not have gradient formation problems, is described in ~~copending, allowed, U.S. application Serial No. 08/506,173~~ U.S. Patent No. 5,627,070. This HF device allows outflow of the lumenal flow to be completely blocked. This leads to equal perfusion of nutrients along the entire length of the hollow fiber capillaries. It also includes an oxygen feed on the ECS of the bioreactor to provide desired oxygen delivery characteristics.

Please amend the paragraph beginning at page 38, line 3 as follows:

For large-scale growth of regulatory immune cells hollow fiber bioreactors that have improved fluid dynamics to reduce gradient formation are preferable [see, e.g., U.S. Patent No. 4,804,628, see, especially ~~allowed copending U.S. application Serial No. 08/506,173~~ U.S. Patent No. 5,627,070] are presently preferred. The hollow fiber bioreactors that have such improved fluid dynamics are best suited for the large-scale growth of regulatory immune cells.

Please amend the paragraph beginning at page 55, line 13 as follows:

The cells recovered from the mini hollow fiber device were incubated in T-flasks at 1 x 10^7 cells/ml in cRPMI without mAb stimulation for 48 hours. The cells were then labelled with anti-CD3 mAb and inoculated into a GAM-coated large hollow fiber bioreactor [see, ~~copending allowed U.S. application Serial No. 08/506,173~~ U.S. Patent No. 5,627,070, discussed above] with 200 ng/ml of anti-CD5 and anti-CD28 mAb. The cells were harvested, washed and counted after 14 days.

Please amend the paragraph beginning at page 55, line 21 as follows:

The cells recovered from the single large hollow fiber bioreactor [see, ~~copending allowed U.S. application Serial No. 08/506,173~~ U.S. Patent No. 5,627,070, discussed above] were incubated for 48 hours in a 10 liter spinner flask at 107 cells/ml in cRPMI without mAb stimulation. The cells were then labelled with anti-CD3 mAb and inoculated into each of the 8 GAM-coated hollow fiber bioreactors with 200 ng/ml of anti-CD5 and anti-CD28. After 14 days, the cells were harvested, washed, and counted.